



# PRODUCT NEWS

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## SOLID SILICONE RUBBER FROM AUBURN

### Features

- |   |                                |                              |
|---|--------------------------------|------------------------------|
| ★ High temperature resistance to +500°F | ★ Resistant to Compression Set | ★ Good Electrical Properties |
| ★ Low Temperature Flexibility to -100°F | ★ Non-Stick Surface            | ★ Long Service Life          |

### General Description

**Thermal:** Auburn silicone rubber has unique resistance to temperature extremes. Its physical characteristics are not adversely affected by exposure to temperatures as high as +500°F. Intermittent exposure to temperatures considerably in excess of this are commonplace. The low temperature flexibility of silicone rubber is unexcelled by any other elastomer. It remains functional at temperatures as low as -100°F.

**Electrical:** Ozone, aging and corona have little or no effect on Auburn silicone rubber. Electrical strength, power factor, and insulation resistance are retained under elevated temperatures and under conditions where other insulation fails.

**Compression Set:** Resistance to compression set is the ability of a material to return to its original position after the removal of a compressive load. From sub-zero to elevated temperatures Auburn silicone rubber exhibits a lower compression set than any other elastomer.

**Release:** Auburn silicone rubber has an excellent release surface. Sticky, pasty, viscous materials release easily under a variety of operating conditions.

**Long Service Life:** Because of its resistance to the deteriorating effects of sunlight, moisture, radiation, and oxidation at elevated temperatures, Auburn silicone rubber's service life at room temperature is virtually unlimited.

**General:** Auburn silicone rubber contains no acid producing chemicals and is non-corrosive. It is odorless, tasteless, and non-toxic. It can be bonded to metal, glass, ceramics, and plastics through the use of silicone or acrylic adhesives.

### Auburn Solid Silicone Sheets and Continuous Lengths Meets Mil-R-5847D & ZZ-R-765 Class 2a & 2b

	Physical Properties, Temp. Range, & Availability								
Auburn Product Number	S30	S40	S50	S60	S70	CS30	CS40	CS50	CS70
AMS Number	-	3301	3302	3303	3304	-	3301	3302	3304
Color	red	red	red	red	red	red	red	red	red
Durometer Shore A ± 5	30	40	50	60	70	30	40	50	70
Tensile Strength (PSI)	800	700	700	700	700	850	900	900	750
Elongation (%)	550	400	350	200	160	500	500	400	160
Tear Strength (PPI)	50	75	70	65	60	40	80	75	65
Compression Set, % After 72 Hrs. At 302°F.	15	15	15	15	15	15	15	15	20
Temperature Range °F	-100°F to +500°F								
Availability	Sheet Size: 36" x 36"					Continuous Length 36" Wide			
Thickness	1/32" thru 1/2" in .031" increments standard					1/32", 1/16", 3/32", 1/8"			
Tolerances	1/32" thru 3/16": ± .016" 1/4" thru 1/2": ± .031"					CS30 all thickness: ± .010" CS40,CS50,CS70 1/32" thru 1/16": ± .005" CS40,CS50,CS70 3/32" thru 1/8": ± .010"			

All properties are typical values and should not be used for writing specifications. Special orders are available upon request.

## Auburn High Strength Solid Silicone Rubber

Meets ZZ-R-765B Class 3b

### HS235, HS255 & HS275

The unusually good tensile strength and superior tear resistance are closely interrelated, and, in combination with other excellent physical properties, produce a much tougher, more resilient, harder to tear silicone rubber than heretofore available.

Size: 36" wide continuous length  
 Thickness: .031", .062", .125"  
 Tolerance: ± .005" to .062"  
 ± .010" over .062"

\* Also available with silicone or acrylic pressure sensitive adhesive backings.

	HS235	HS255	HS275
PHYSICAL	AMS3	AMS334	AMS33
Durometer, Shore A	30	50	70
Tensile Strength, PSI	1050	1200	1100
Elongation %	700	500	350
Tear Strength, PPI	140	160	150
Compression Set %	35	40	35
Color	Gray	Gray	Gray
Temperature Range	-100°F to +500°F		
HEAT AGING 22 Hours @ 400°F			
Durometer change	- 0, +	- 0, + 5	- 0, + 5
Tensile Strength,	- 5	- 10	- 12
Elongation, Change,	- 15	- 15	- 15
SYDROL RESISTANCE 70 Hours @ 160°F.			
Durometer change,	-6	- 10	- 11
Volume Change %	+ 10	+ 10	+ 10

## Auburn Fiberglass Reinforced Solid Silicone Rubber

Meets AMS-3320B

### AUBURN FR320

Fiberglass Reinforced Sheets

High breaking strength sheets are made from silicone rubber stock with a fiberglass insert. These high quality sheets far exceed AMS-3320B breaking strength, lubricating oil resistance and compression set.

Size: 36" wide continuous length  
 Thickness: .062", .093", .125"  
 Tolerance: ± .010"

\* Also available with silicone or acrylic pressure sensitive adhesive backings.

	FR320
PHYSICAL PROPERTIES	AMS3320B
Durometer	70 ± 10
Breaking Strength	370 lb./in.
Compression Set, % of original deflection 22 Hrs. @ 350°F.	45 %
Low Temperature Flexibility, 5 Hrs. @ -70°F.	
Flex	Pass
Delamination	None
Density	.05 lb./cu.in.
Temperature Range	- 85°F to +500°F

## Auburn Adhesive Backed Solid Silicone Rubber Sheet

Auburn S30 thru S70, the HS series, & FR320 are available from stock as pressure sensitive adhesive backed material. The silicone pressure sensitive polymer withstands the same temperature range as the silicone rubber. The acrylic polymer is recommended for room temperature applications where a more aggressive bond is required.